

# Quadruple Aim: Readiness at the





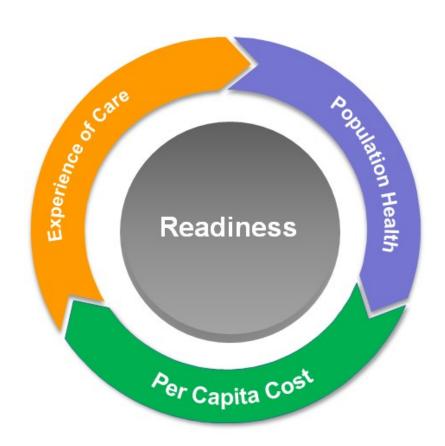
RADM Mark Tedesco, MD, MPH



U.S. COAST GUARD

# Quadruple Aim: Readiness at the Center





Working Together, Achieving Success

# Quadruple Aim: Readiness at the Center





# Quadruple Aim: Readiness at the Center



Readiness

- "That Rdiman Methication Beadiasts Guard
- · Apatthi Seav Edespisrto
- · Intepage Coast Recartd
- · Tagetiga Medicine
- Medical Surveillance
- Health Information

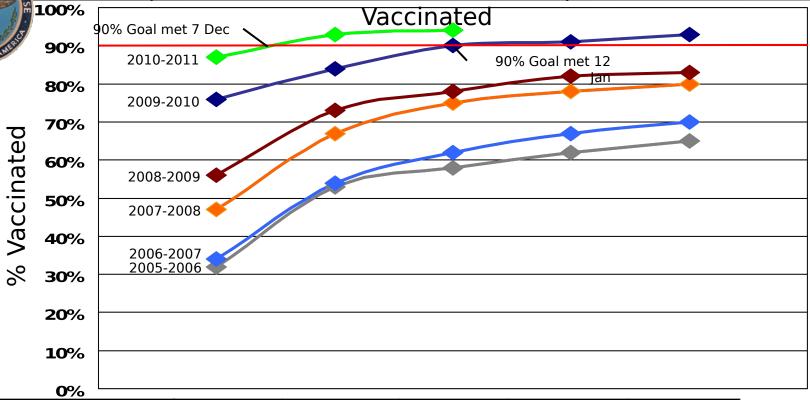


# Individual Medical Readiness



Clinic	Source	Specialty Exam	PHA	DLMC	Dental	Immunizations	Influen
ACADEMY COMMAND STAFF (002337)	Active	72.7%	92.3%	99.8%	90.6%	82.5%	
ACADEMY COMMAND STAFF (002337)		72.7%	92.3%	99.8%	90.6%	82.5%	1
CG AIRSTA ATLANTIC CTY (000768)	Active	96.9%	92.9%	100.0%	94.8%	96.3%	
CG AIRSTA ATLANTIC CTY (000768)		96.9%	92.9%	100.0%	94.8%	96.3%	
CG AIRSTA BORINQUEN (000012)	Active	98.6%	97.6%	100.0%	92.7%	95.9%	
CG AIRSTA BORINQUEN (000012)		98.6%	97.6%	100.0%	92.7%	95.9%	-1
CG AIRSTA CAPE COD (000568)	Active	95.5%	88.2%	100.0%	95.6%	93.5%	
CG AIRSTA CAPE COD (000568)		95.5%	88.2%	100.0%	95.6%	93.5%	
CG AIRSTA CLEARWATER (000657)	Active	91.4%	82.9%	99.7%	88.2%	88.5%	
CG AIRSTA CLEARWATER (000657)		91.4%	82.9%	99.7%	88.2%	88.5%	
CG AIRSTA LOS ANGELES (000459)	Active		100.0%	93.8%	100.0%	100.0%	
CG AIRSTA LOS ANGELES (000459)			100.0%	93.8%	100.0%	100.0%	- 1
CG AIRSTA MIAMI (000289)	Active	90.8%	70.6%	99.8%	90.4%	93.5%	
CG AIRSTA MIAMI (000289)		90.8%	70.6%	99.8%	90.4%	93.5%	
CG AIRSTA PORT ANGELES (000638)	Active	90.4%	74.3%	100.0%	91.4%	91.2%	
CG AIRSTA PORT ANGELES (000638)		90.4%	74.3%	100.0%	91.4%	91.2%	
CG AIRSTA SACRAMENTO (000616)	Active	97.4%	90.4%	100.0%	93.0%	92.0%	
CG AIRSTA SACRAMENTO (000616)		97.4%	90.4%	100.0%	93.0%	92.0%	
CG AIRSTA SITKA (000518)	Active	78.9%	97.8%	100.0%	92.5%	94.1%	
CG AIRSTA SITKA (000518)		78.9%	97.8%	100.0%	92.5%	94.1%	
CG AIRSTA TRAVERSE CIT (000211)	Active	96.0%	91.5%	99.9%	88.5%	91.6%	
CG AIRSTA TRAVERSE CIT (000211)		96.0%	91.5%	99.9%	88.5%	91.6%	
CG AVTRACEN MOBILE (000002)	Active	77.5%	81.5%	99.9%	83.4%	86.6%	
CG AVTRACEN MOBILE (000002)		77.5%	81.5%	99 9%	83 4%	26.6%	

## ACTIVE COMPONENT INFLUENZA IMMUNIZATION STATUS Comparison of Seasonal Influenza Compliance - Percent



	<u> </u>			*		-
		Nov	Dec	Jan	Feb	Mar
	2010-2011 Season	87%	93%	94%		
	2009-2010 Season	76%	84%	90%	91%	93%
	2008-2009 Season	56%	73%	78%	82%	83%
	2007-2008 Season	47%	67%	75%	78%	80%
	<b>2006-2007</b> ataessene: S	ervice3 <del>1</del> 5%Nov 08	8 - Jan 514 % and DE	ERS N&765 - Ma	r 08 en $67\%$ month	reports.%
ichael K	ru <b>l20 (753)2 2696525 (DSM (20</b> 1) M	ichael.k <b>3 2k%</b> @amed	ld.army. <b>5</b> n <b>3</b> %	UNE@LASSIF	IED 62%	6 65% as of 20



# Operational Health Services Support



- Operational Support Platforms
  - 42 Clinics
  - 62 Sick Bays Afloat
  - 72 Sick Bays Ashore
- Aviation Medicine
  - Flight surgeons/ MEDEVACs
- Tactical Medicine
- Contingency Operations
- Fleet support
  - Rescue Swimmers / EMT-B







**U.S. COAST GUARD** 



# **Coast Guard Missions**







## **Coast Guard Missions**



### **Maritime Safety**

- Search and Rescue
- Ice Operations Malatime Safetlity\*
- Absting Safety **Navigation**
- Polar & Domestic Lawuandigreaty

Maritime

## **Homeland & Maritime** Security

- Port & Waterways Security
  - **ProtektiendiftNatural**
  - RESOUVICESant ntMaticutonollution

Enforcement, Response and Enterpolic Personse

Foreign Vessel



# ditian Operations









## **Maitian Operations**





- Coast Guard was the first of the US Forces on-scene in Port Au Prince
- MEDEVAC > 120 critically injured
- Evacuated ~ 936
   American citizens

# Haitian Operations Medical Readiness





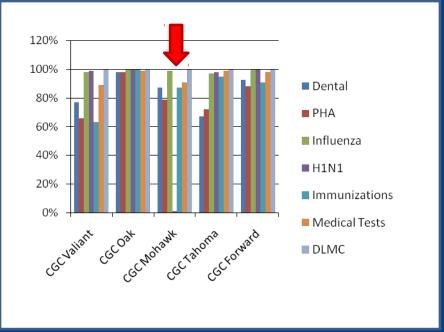
#### is Cholera?

is an acute bacterial infection of the digestive tract causing diarrhea, vomiting, and le t treatment, dehydration, collapse, and death can occur within hours.

#### e is Cholera Found?

is found in water or food sources that have been contaminated by feces (stool) from dwith cholera (due to inadequate water treatment, poor sanitation, and inadequate h

Does a Person Get Cholera?



- Medical units on ground within ~24 hours
- 20 Flight Surgeons ready to deploy within ~6 hours





# Deepwater Horizon (DWH)







# 







# Overall Assets & Personnel:

- 48,000+ personnel
- 10,000 Vessels of Opportunity
- 125 aircraft
- 1000+ organizations







## <u>Coast Guard</u> <u>Personnel</u>:

- 4,500 Coast Guard personnel deployed (~10% of Coast Guard workforce)
- Assumed command
   & control
   immediately after

the disast Guard







### HEALTH PROTECTION

nd safety of our Coast Guard responders is our primary concern. Coast Guard health and safety persoi nonitoring the environment and working diligently to minimize the exposure risks faced by oil spill res

#### TO DEPLOYING TO THE DEEPWATER HORIZON OPERATION:

#### ANS MUST

te a medical self risk evaluation up-to-date tetanus immunization (Td or Tdap)

E DUTY AND SELECTED RESERVE MEMBERS MUST

nedical readiness status of gree

#### STRESS & FATIGUE ARE THE TWO BIGGEST HEALTH & SAFETY HAZ

he worksite's recommended work/rest schedule

e direct sun exposure

ouate sleep

buddy system at all time:

#### HERED CRUDE CONCERNS:

the odors present during operations, tests on more than 15,000 air samples show weathered crude has extremely low levels of Volatile Organic Compounds e information on weathered crude, please see ALCOAST 341/10

#### JRED WHILE ON ASSIGNMENT YOU MUST:

the injury to an on-site supervisor

staidif necessar

complete a CA-1 or CA-2 form: <a href="http://www.dol.gov/owcp/regs/compliance/ca-1.pdf">http://www.dol.gov/owcp/regs/compliance/ca-1.pdf</a>
contact your servicing Command Staff Advisor/Human Resources specialist to initiate

he Deepwater Horizon Event Health-Related Inventory\*

#### HAVE ANY HEALTH CONCERNS PLEASE ENSURE THAT YOU:

our supervisor and site safety person

## **Medical Readiness:**

Able to deploy
 Coast Guard
 personnel rapidly
 due to improved
 medical readiness &
 clear force health
 protection guidance













# Deepwater Horizon Operations







Booming & Skimming Ops

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## **Interagency Support**







## teragency Support







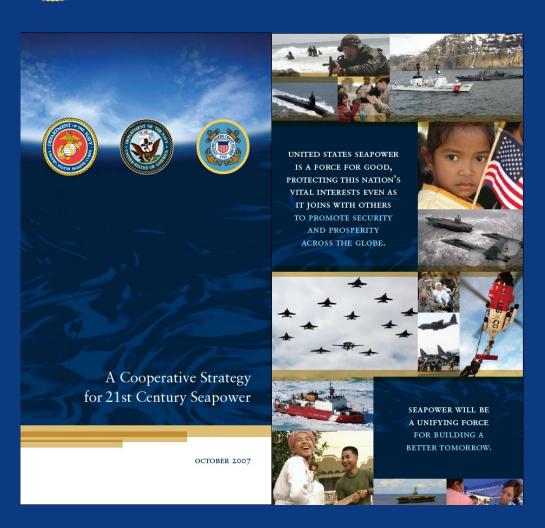
- Tamiflu stockpile
- PPE Push Packs
- Vaccination tiger teams immunized DHS personnel
  - Rabies
  - Typhoid
  - H1N1 Influenza





## **DoD Partnerships**





- •SMMAC / FHPC
- DHB / AFHSC
- JPMPG / MILVAX
- JOMMC / JMPC
- AMSWG / JAMPS
- •RHRP / Fleet HRA
- MRRS / EDHA
- AERO / DRSi
- VLER / ICIB



## **Tactical Medicine**



- Deployable Ops Group (DOG)
  - DOG Surgeon & Corpsmen
- Deployable Medical Support
  - Port Security Unit
  - Cutters / MSSTs
  - Patrol Boats
- Tactical Combat Casualty Care





# Term Surveillance (DWH)

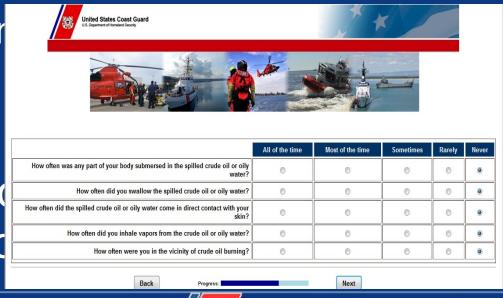




# Medical Readiness Ong Term Surveillance (DWH)



- A web-based survey administered to all 4,500 Coast Guard responders regarding:
  - Time & Site of Response
  - Mission(s) Perform
  - Exposures
  - Health Effects
- Integration with ( Health Information System

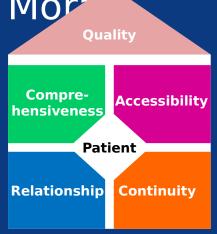


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# Medical Readiness & Patient Centered Medical Home



- Medical Home
  - Improve Population Health & Medical Readiness
  - Reduce Time Away from Work
  - Healthier Individuals Improved Mor
  - Enhance Career Productivity
  - Decrease Disability
  - Support Mission Effectiveness



# Medical Readiness -Electronic Health Record

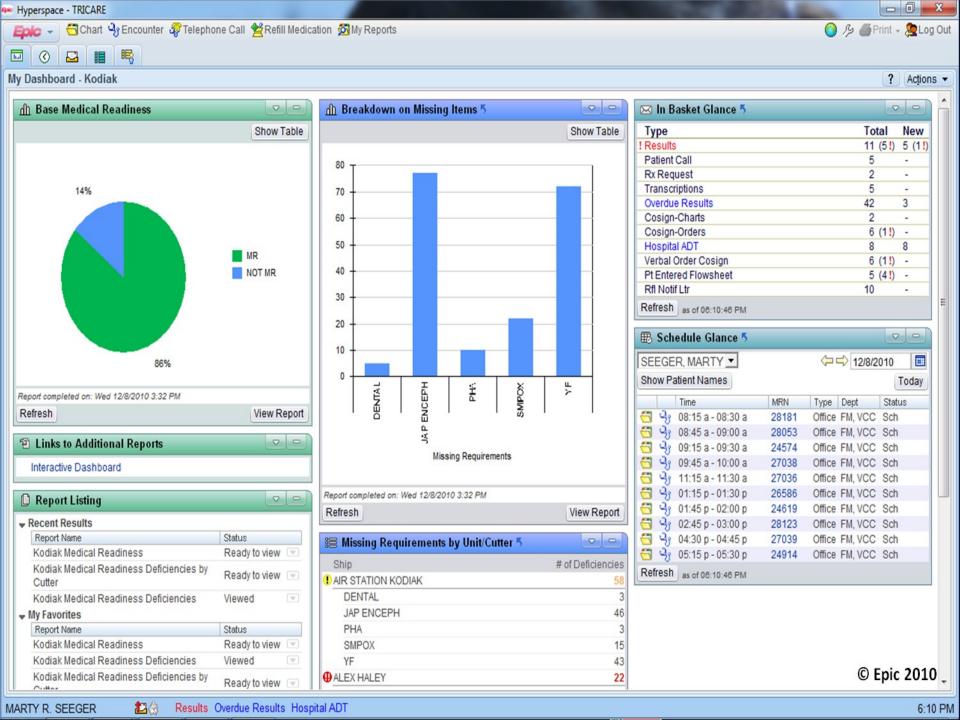
#### **Medical Information Suite**

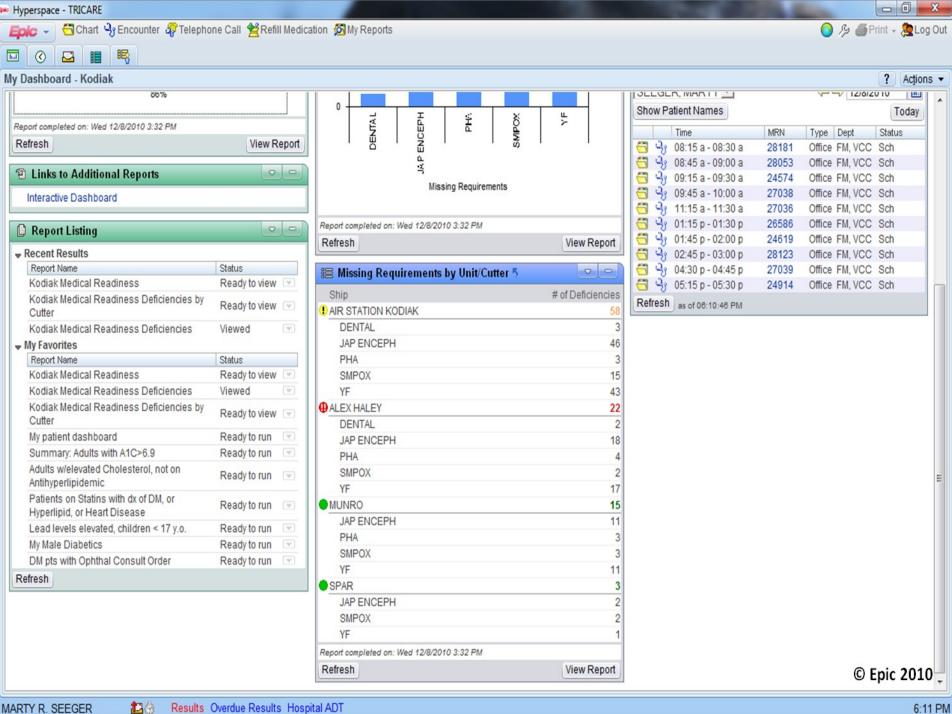
- Electronic Health Record
  - Dental Module
  - Behavioral Health Module
  - Occupational Health Module
  - Medical Readiness Reporting Module
- Single Sign-on & Context Management Interface
- VLER & NHIN Gateway
- Centralized Radiograph Storage and Retrieval
- Integrated Patient Satisfaction & Peer Review System
- Staff Satisfaction Survey
- Patient Health Portal (My Chart)



















# Medical Readiness - The Way Forward

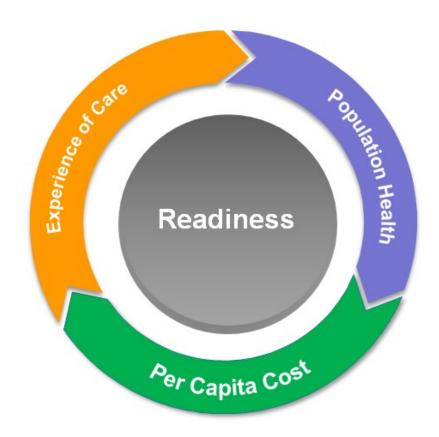


- To ensure we maintain and improve Operational Support while sustaining the in-house health care side of medical readiness.
- To determine how to value
   Operational Support as a metric from a cost-efficiency perspective.



# Readiness - the Core Mission









### All Threats, All Hazards, Always Ready







## Background Slides







### **Bast Guard Force**



- Active Duty = 42,971
- Reserve = 8,109
- Civilians = 8,358
- Auxiliarists = 36,692









## **Coast Guard Force**





Army
Navy
Marines
Air Force
Coast Guard















**PHS Commissioned Corps** 



**NOAA Commissioned Corps** 







## **Coast Guard Missions**



Maritime Safety	<ul><li>Search and Rescue</li><li>Ice Operations</li><li>Marine Safety</li><li>Boating Safety</li></ul>			
Homeland and Maritime Security	<ul> <li>Port and Waterways Security</li> <li>Drug Interdiction</li> <li>Alien Migrant Interdiction</li> <li>U.S. Exclusive Economic Zone and Living Marine <ul> <li>Resources</li> <li>Law and Treaty Enforcement</li> </ul> </li> </ul>			
Protection of Natural Resources	<ul> <li>Marine Pollution Education, Prevention, Response and Enforcement</li> <li>National Response Center</li> <li>Foreign Vessel Inspections</li> <li>Living Marine Resources Protection</li> <li>Marine and Environmental Science</li> </ul>			
Maritime Mobility	<ul> <li>Aids to Navigation</li> <li>Polar and Domestic Ice Breaking</li> <li>Bridge Administration</li> <li>Maritime Transportation (VTS)</li> </ul>			
National Defense	• Special Forces			
	U.S. COAST GUARD			



## **Operational Support**



## Air Crew Readiness -

- Aviation support
  - Flight surgeons
  - MEDEVACs
- Fleet support
  - RescueSwimmers
  - EMT-B

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	as a le	riight riv yr 30 D ys	<u>जे ( इन्त्र स्ट्रा ह</u>	Cay <u>Hoist</u>	<u>Night Hoist</u>	Day Rescue Swim	Night Rescue S	
2004	Air Station	0.5	38.3	1,080	1,080	1,080	1,080	
	Air Stations	0.5	38.3	1,080	1,080	1,080	1,080	
2005	Air Station	0.8	38.1	973	973	973	973	
	Air Stations	0.8	38.1	973	973	973	973	
2006	Air Station	0.6	43.2	1,007	1,338	1,089	1,338	
	Air Stations	0.6	43.2	1,007	1,338	1,089	1,338	
2007	Air Station	0.4	39.9	950	NA	367	1,362	
	Air Stations	0.4	39.9	950	NA	367	1,362	
2008	Air Station	1.6	75.9	1,225	NA	NA		
	Air Stations	1.6	75.9	1,225	NA	NA	A	
009	Air Station	1.7	128.4	NA	NA	NA		
	Air Stations	1.7	128.4	NA	NA	NA		
010	Air Station	1.2	82.1	17	NA	NA		
	Air Stations	1.7	82.1	17	NA	NA		







- Supporting USSOUTHCOM JTF
- Operation VigilantSentry Coast



## Haitian Operation Medical Readiness





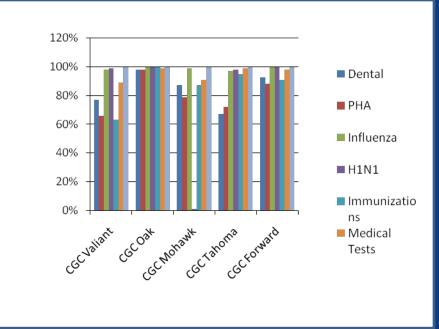
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## Interagency Support







## **oD** Partnerships



- Polar Medicine
  - Polar Class Ice Breakers
    - 1 Medical Officer and 1 IDHS
- Aviation Medicine
  - Fixed wing
    - No intrinsic medical supp
  - Rotary wing
    - 1 rescue swimmer (EMT-E
    - (MEDEVAC/SAR)







## **NIH Gulf Study**



Prospective cohort study of potential short- and long-term health effects associated with workers and volunteers (>55,000) involved in DWH clean-up activities



# Medical Readiness Long Term Surveillance (DWH)



- Environmental exposures
  - UV exposure
- Workplace injuries
  - Slips, trips, falls & MVAs
- Insect bites / stings
- Fire
- Excessive noise